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The Third Congress of British Universities

A CONGRESS of Universities of the British Empire met in London in 1912 for the consideration of common problems. Inter-university arrangements for graduate study and research, interchange of university teachers, the desirability of a central bureau of information were subjects discussed. As a direct result of this meeting there was established the Universities Bureau of the British Empire at 50 Russell Square in London, known to Americans because here also is the office of the American University Union. Within two years the bureau published the first volume of the invaluable Yearbook of the Universities of the Empire, edited by W. H. Dawson and published by G. Bell and Sons, Ltd. The secretary of the bureau is Alexander Hill, O.B.E., M.A., M.D. W. H. Dawson is the assistant secretary.

At this first congress delegates adopted a resolution declaring that it was desirable for the universities of the various Dominions of the King overseas to arrange for periodical meetings of their representatives. At the second congress attention was called to the formation of the Conference of Canadian Universities, the Advisory Committee of Australian Universities, and the Joint Committee of South African Universities. Delegates of Indian universities agreed in 1921 that it was desirable to form an Association of Indian Universities.

The second congress was to have met in 1917, but this, of course, was inhibited by the war. It assembled in Oxford in 1921. Subjects considered at this meeting were: "The Universities and the Balance of Studies," which included a consideration of the place of the humanities in the education of men of science and men of affairs, the place of the physical

and natural sciences in general education, and the question of specialization in university curricula; "The Universities and the Teaching of Civics, Politics and Social Economics," "The Universities and Secondary Education," "The Universities and Adult Education," "The Universities and Technological Education," "The Universities and Training for Commerce, Industry and Administration," "The Universities and the Training of School Teachers," "University Finance," "The Universities and Research," and "Interchange of Teachers and Students."

The third Congress of the Universities of the Empire of one hundred and ninety delegates and one hundred and seventy-four other members representing universities in all the dominions and colonies as well as the United Kingdom was opened on Tuesday, July 13, 1926, in the Senate House, University of Cambridge, by the Chancellor of the University of Cambridge, the Right Honorable the Earl of Balfour.

Referring to the problems raised by the growth of modern knowledge in all departments, the Earl of Balfour said that one of them was the prosaic problem of money. Modern education was very expensive compared with the education even of one hundred years ago or less. The scientific side alone was enormously costly in these modern days. We could develop what our forefathers had done only by the very expensive methods which modern apparatus inevitably threw upon every institution which carried out its work properly. If the state were asked to subscribe great funds, there would always be a natural and pardonable instinct on the part of the state to control and supervise the working of the institutions which they were doing so much to support. It was natural, but it was extremely dangerous. He did not think that in the older universities in this country there was any probability of that danger becoming menacing to any serious extent. They had received assistance from the state in England, but English university traditions were deeply rooted, and he did not think there was any serious

symptom of any government attempting to interfere with the university autonomy, which, whether well or ill exercised, was at the worst far better than state control.

There were other dangers connected with the growth of learning, the speaker went on to say, and specialization appeared to him to be one of the most serious and absolutely inevitable. They could not in these days be absolutely in the very forefront of any branch of study which they had made their own without, to a certain extent, neglecting, in a way which our forefathers were not compelled to neglect, other branches of learning. There was no way of wholly avoiding that danger, but university life in itself was to a great extent a remedy. If men engaged in the most diverse occupations daily met together in intellectual and social intercourse, some of the greatest evils of over-specialization would be very largely mitigated.

The material progress of mankind undoubtedly depended upon the application of modern science to modern industry, but, while universities ought to play an immense part in that aspect of modern industry, it would be a fatal blow to the true ideal of the university to put immediate practical utility as the great ideal which the researchers of a university should keep before their minds. There was always the danger, when they were dealing with science in its application to industry, of looking for immediate results. Higher research and the endeavor to penetrate the secrets of nature for the sake of knowledge, and not for the sake of material advantage, was an ideal which must have its roots in the universities. If they regarded themselves merely as ministers to the immediate economic needs and interests of the community in which they lived, half their utility would be gone as centers of research.

Prof. E. R. Holme, University of Sydney, spoke of the relations of Australian universities and the state. Dangers in the large and necessary dependence of the university on the state he admitted. Objectionable policies or actions of some one bad government, however, should not make one forget that through the enlightened and beneficent policies of

ministries since the 'fifties of the last century it had come about that in 1913 every state in Australia had its own university. Public money spent must be counted in millions. In Australia the state had been obliged to make roads and open railways to open territory for settlement; it had been obliged to declare that elementary education must be free and compulsory; it had extended its range to secondary education; it had begun to secure an easier transition of the best-equipped pupils into the universities—a task so great that only the state seemed eager and competent to give every boy and girl the right to free university training in spite of poverty. But the Australian university selected its students as it thought right; it was not under state control. There was, moreover, close and friendly touch with parliamentary and permanent heads of state departments. The danger of political nominations had not been more than a threat. There was danger, too, of educational policies being seized on for political purposes; demands for an examining university, to confer degrees on correspondence students in the districts remote from the universities, like the proposed Commonwealth University at Canberra. As yet the British tradition with respect to the possible difference between a university degree and a university education, and with respect to the importance of teaching, had prevailed. The relationship of state and university had to be more dangerous in one part of the empire than in another. It was necessary to accept the dangers with the benefits and to feel hopeful for the future because of the record of the past. The relations of the government of New South Wales and the University of Sydney should be a model for all other relationships: the government had built nearly everything for the university; it was completing now a program of bringing up to date the scientific laboratories, at an annual cost of £50,000; the state provided the means and the university attended to their use, each with full confidence in the other.

Sir Alfred Hopkinson, M.P., said that, having regard to the enormous increase in the cost of education, there must be some state support. They might also look to private

benefactions, and in some districts support could be given by municipal authorities. But it was now recognized that there must be no control whatever by the state with regard to the working of the universities.

Sir Theodore Morison, principal of Armstrong College, Newcastle, said it should always be stated that money, whether from state, local authority or benefactor, could be accepted only on condition that the university retained complete autonomy.

Leonard S. Klinck, president of the University of British Columbia, presented a paper in which he explained the relations of universities and states in Canada. State universities, he said, were supported by appropriations from the provincial legislatures, by student fees, and by state and private endowments. State support presupposed a measure of state control. But while state control of education always implied danger of political interference, a danger also that academic freedom might be in a measure curtailed, political interference in university affairs in Canada had not, for decades, been such as to leave the state universities open to the suspicion of being less independent than privately supported institutions. The fact was that, whether the source of revenue be public or private, universities could not claim for themselves complete freedom of action in formulating and carrying out their policies. The policies of state and endowed universities alike are open to challenge and criticism; but it could not be said that the governors of a state university in Canada were any more liable to be dictated to by the legislature than the governing board of an endowed institution is liable to be dictated to by private benefactors.

The desirability of establishing in London a School of Advanced Legal Studies was discussed Tuesday afternoon in the Arts School. The Right Honorable George, Viscount Cave, Lord High Chancellor, Chancellor of the University of Oxford, being on the woolsack, the chair was taken by Dr. F. W. Pember, Warden of All Souls. In his address

the chairman called attention to the fact that a great university of legal study and research such as had existed in the middle ages never had been revived and suggested the cooperation in London of the Inns of Court, the Law Society, and the University of London in the creation of an Imperial School of Law.

The Honorable Justice R. A. E. Greenshields, Dean of the Faculty of Law, McGill University, in opening the discussion, confined himself to the desirability of establishing such a school in the heart of the empire, illustrating by reference to the history of law in his own province of Quebec. From 1763 to 1774 English law by proclamation governed the subdued people and ceded territory; in 1774 it was enacted that in perpetuity in the matter of property and civil rights the old law of France should prevail; the criminal law of England remained the law of the new posession; in 1866 a Provincial Statute established the Civil Code of the Province of Quebec which purports to embody the entire civil law of the province; apart from this, Quebec had borrowed from English law. Each of the Quebec law schools had, for its chief aim teaching of the law in the Civil Code, but even a thorough knowledge left the student much to know about the law of his own province. If such a student could avail himself of a period of study in a school, or institute, of advanced legal studies in London it would be of immense benefit to the individual and the profession in his own country. The speaker referred in passing to the situation in the United States: "In the Republic to the south more than one exists. Harvard, with its vast, almost unlimited financial resources, has for some years maintained such a school. It is equipped in the way of teaching staff, library facilities, etc., as perfectly as money and careful management can make it. Some of our Canadian graduates seek its advantages. It is regrettable that such of our law graduates as go to Harvard (few though they may be) have no such school available within the empire." The establishment of such a school would in time lead to the creation of a body of learned jurists to fill the chairs of Canadian law schools,

to the great advantage of the bar and the public. There should be no interference with the present system of elementary legal education, no competition with either the Inns of Court or the provincial law schools. Indeed in Quebec a body of examiners must pass on all candidates, no matter what the degree, and if the proposed school were merely to replace any of those now training for the bar of Quebec, popular resentment would be so great as to exclude candidates with certificates of such a school from membership in the bar of the province. If the School for Advanced Legal Studies should come into existence, he would urge graduates of the McGill Law School to go to London for the advantage of advanced study and teaching and the advantage of contact with law students of other parts of the empire.

Sir Maurice Sheldon Amos, Judicial Adviser to the Egyptian government, declared that he had been greatly impressed by the importance of the Faculty of Law of the University of Paris as a power for spreading the influence of French law. Twenty countries, not French colonies, had established French law owing directly, he thought, to the prestige of the French Law Faculty. The establishment of a great school of law—advanced law—an institution which might include a postgraduate school of law, a research institute, and a staff college, had been left too long. To such an establishment men from the colonies, civil servants, and especially diplomats, would gladly resort. He called attention to the fact that already the War Office was sending men for advanced studies to the London School of Economics.

R. W. Lee, Professor of Roman-Dutch Law at the University of Oxford, insisted that the proposal involved no propaganda for the common law and no change of conditions of training for law in undergraduate fields. Certainly London conditions were not those of American law schools, and there should be no effort to introduce the latter. The proposed plan was larger because of the large number of legal systems in the empire and the significant geographical position of London on the edge of Europe. He proposed a

center of legal study and a bureau of legal information. It should provide opportunity for additional learning in the common law, in the laws of British dominions and colonies, the laws of other countries, native laws and customs. Who would resort to it? Students of the empire who desired further study of the common law; foreign students who sought knowledge of the common law (the French and Japanese, for example, had shown such an interest); British subjects studying civil law systems of other parts of the empire like Quebec and South Africa, systems not to be studied in France and Holland because in those countries these systems were obsolete; colonial administrators; men of affairs; legislators in England or the dominions; diplomats or members of international conferences. To satisfy these needs there should be a site. There should be a library which should be the best law library the world had ever seen. Any American law school expended £2,000 a year on books. This library ought to have £5,000. There should be a director, one who could see across the channel. There should be a librarian. But there should be no complete apparatus of professors. This should be a place not of teaching but of learning; teaching was the enemy of learning. Whence the money? Whence the books? Some of the existing law libraries in London might deposit some of their volumes in such a library. The Bodleian Library already did this sort of thing. It should be possible to pool the books, for example, on American, Roman or Dutch law.

R. B. Pandit Sheo Narain, member of the Law Faculty of the Panjab University, called attention to the importance of studying customs. In his country if the custom of the people could not be discovered, then Mohammedan law was invoked for Mohammedans, and Hindu law for Hindus. In his opinion such a school should not be for administration primarily but should represent rather scholarship and learning.

The Right Honorable H. P. MacMillan, K.C., dwelt upon the philosophical consideration of the law as illustrated in the history of Scottish Law by Lord Stair's Institutions of

the Law of Scotland and the writings of John Erskine and George Joseph Bell.

S. C. Baggchi, principal of the University Law College, Calcutta, declared that he would like to have the law studied in the spirit of the continent and of America. He would have it considered with other subjects, living subjects like sociology, ethics and economics. He referred to a lecture he had recently heard in the Collège de France, to the ways of Vinogradoff, and in conclusion quoted Roscoe Pound.

H. C. Gutteridge, Professor of Commercial and Industrial Law, University of London, sounded a call for immediate action. The subject, he said, was before Parliament in 1854; there had been innumerable occasions for discussion, and yet now the situation was what it had been a hundred years ago. In the libraries of the Inns of Court, the British Museum, the London School of Economics, King's College and University College, books were already available—books not to be found even in America. The student, however, did not know where to find them. There was need of a central catalog. He conceived such a school as a legal laboratory. Students were already in London and coming in increasing numbers from the dominions and abroad. Maritime law was sought very largely because international in character.

The Right Honorable Lord Justice Atkin concluded the discussion, referring to several points raised by other speakers and making certain practical suggestions. One of the greatest advantages a law student would get in coming to London was the chance to know the spirit of the law and of its administration. Already in London there were four or five wonderful libraries. He suggested that each dominion government be induced to subsidize a library of its own at some particular library. But a library was not enough: a student, even an advanced student, needed direction. The director ought to advise a student as to books and as to teachers. He believed there would be no difficulty in coordinating the present teaching of law so as to get pro-

fessors for such teaching. He urged the immediate formation of a committee.

"Cooperation in Research throughout the Empire," which was the subject announced for Wednesday morning, July 14, with the Most Honorable the Marquess of Londonderry, Chancellor of the Queen's University of Belfast, in the chair, brought out a very full attendance of the congress.

A report on the effect of the war on coordination of research in the several dominions led to a discussion by Sir Thomas Holland, rector of the Imperial College of Science and Technology, of the important field of research in industrial development, and especially for the empire, having in view the utilization of raw materials. One question of importance for members of the congress was: Did the establishment of government laboratories tend to supplant university functions? As far as Great Britain was concerned there was, in his opinion, no difficulty. Another important question was: Could the universities take further advantage of the new official machinery for correlation and financial support? He said that the Imperial College of Science and Technology had found a ready response to their suggestions for research work and a willingness to render the necessary financial assistance to research workers.

Sir John Farmer, Professor of Botany in the Imperial College of Science and Technology, called the attention of the universities to the importance of the great development in tropical agriculture. He advised greater attention to splendid opportunities open to young scientists in connection with great tropical industries abroad.

Sir Arthur Shipley, Master of Christ's College, Cambridge, and chairman of the Imperial College of Tropical Agriculture, emphasized, in his witty way, the work of the Imperial College of Tropical Agriculture founded five years ago in Trinidad. The work in plant pathology was especially important.

Dr. Andrew Balfour, director of the London School of

Hygiene and Tropical Medicine, declared that at present much time was wasted, energy dissipated and money thrown away, owing to the fact that in the domain of tropical medicine men were to a large extent working in watertight compartments. Some organization was required which could consider and lay down lines of research work, follow up what was done, and decide not only what results were worth recording but how best they could be recorded. Only in India, he thought, had there been anything accomplished in this direction. A hopeful development was the appointment at the Colonial Office of a Chief Medical Officer to the Secretary of State. Another was the establishment of the Committee of Civil Research, a committee which owed its existence to Lord Balfour and which had already concerned itself with research in tropical fields. He believed each colony should have a department of scientific research and there should be a central institute.

Sir Jagadis Chandra Bose also expressed himself in favor of cooperation in research, as did several other representatives from India.

In the afternoon on Wednesday, July 14, four meetings were held simultaneously. At one, presided over by Sir Theodore Morison, there was presented by the Universities Bureau a summary of replies by overseas universities to a circular concerning forms for uniform statistics. The basis of the study was the form used by the University Grants Committee in England. To assist in formulation of a common policy for universities in all parts of the empire in the matters of statistical returns and the adoption of a uniform nomenclature and uniform definitions and categories, the secretary of the bureau invited cooperative study of the forms. In the event of general acceptance they will be used for the purpose of securing returns for incorporation in future editions of the Universities Yearbook.

In another meeting Sir Donald MacAlister, principal of the University of Glasgow, led the consideration of classification of honors graduates.

In the third section, "An Imperial Policy in Education" was the subject, and the basis of discussion was a paper by Prof. H. G. Earle, Professor of Physiology, University of Hong Kong.

In the fourth section, of which Sir Henry Miers, who recently retired as Vice-Chancellor of the University of Manchester, was chairman, there was a discussion of interchange. The chairman limited this to a discussion of an interchange of graduate students and teachers among the universities of the empire. Only twenty-five persons attended this meeting. Colonial professors declared that there was no desire for exchange on the part of professors in the United Kingdom, that it was very difficult to arrange an exchange with anyone in England. Other difficulties pointed out were the differences in calendar north and south of the equator, the fear of losing posts through absence, the difficulty of replacing a man who goes abroad. One English professor declared that in physics and chemistry, as in the arts, the universities of the colonies could offer nothing to induce an English professor to accept an exchange professorship. The chairman expressed a hope that it might be possible to get back the roving idea of the Britisher. Another speaker hoped that the British steamship lines might assist by offering reduced rates. In connection with this meeting an article, "Interchange," by Prof. Alexander Hill (University Bulletin, December, 1925), and a reprint of the 1925 report in the Universities Yearbook were distributed, both of which exhibit a considerable interchange of students and professors.

Mutual recognition of examinations and of time spent in study elsewhere was the subject of the morning session, Thursday, July 15, when the Ex-Chancellor of the University of Queensland, the Right Honorable Lieutenant Colonel Sir Mathew Nathan, took the chair. In his brief address he called attention to the difficulties of student migration and the importance of facilitating migration among the universities of the empire.

Sir Philip J. Hartog, First Vice-Chancellor of the University of Dacca, spoke of the importance to the empire of mutual recognition of degrees. "It is impossible to insure exact equivalence of standard even between two examinations of the same examining body held on different occasions; still less is it possible to equate exactly the examination standards of different bodies. The universities of Britain should frankly recognize the impossibility of any such equation of standards. Nevertheless, they may and should demand that persons admitted to their courses and degrees should produce evidence of having approximately the same intellectual qualifications as those demanded from persons residing in Great Britain, for two distinct reasons: (1) to insure that such candidates have a sound general education, though the nature of such education may differ from that demanded of persons resident in Great Britain; (2) in the interest of both the university and of the candidate concerned, in each case to insure that the nature of the preliminary training has been such as to give him a reasonable hope of success at his final examination. It is suggested that the universities of Great Britain ought to satisfy themselves on these two points without entering into minutiae. But, on the other hand, there should be no relaxation in favor of overseas candidates; thus the B.A. or B.Sc. or M.A. or Ph.D. degrees should bear exactly the same connotation whether they are awarded to candidates from Britain or from overseas." The speaker went on to say that emphasis on the same high requirements for the degree for home and dominion students might lead to greater leniency in admission of students to try for the degree. The whole university world, he thought, suffered from lack of knowledge of the universities overseas; for example, from Oxford's ignorance of Indian universities. Oxford published no list of Indian universities of which degrees were acceptable; but Oxford did have a confidential list. Why should this be so? Certain anomalies in the recognition of Indian degrees and examinations by British universities were apparent. They seemed not to know that the Indian honors degree is based on a three-year course

subsequent to passing the intermediate examination in some of the newer universities like Dacca and Lucknow, whereas in the older universities the honors course is based on two years subsequent to the intermediate examination. Dacca, at the end of the first year, turned out those unlikely to get first class honors. This fact was ignored by Oxford. Cambridge also had but a small Indian list. Sir Philip then made a special plea for the Osmania University in Hyderabad. This institution, he said, conducted instruction in the vernacular and not in English. But its students were well trained in English. Its best candidates were far higher than those of Bengal—just the kind to enter Oxford, Cambridge or London. Indian candidates for research degrees had done well. Each candidate, of course, was received on his merits. The University of London recently stiffened the English requirements for research students. London would not now admit without a general examination in English literature. In the recent examination an Indian passed; the two Americans failed. In science, too, the Indians were progressing rapidly. Professor Ray's journal of chemistry would be a credit to any university in any country. So Sir Philip's plea was for the removal of anomalies and a general recognition of Indian university examinations.

F. J. Wylie, Oxford Secretary to the Rhodes Trustees, based his remarks on experience in securing admission of Rhodes Scholars to the Oxford colleges. Most of these read for the degree of Bachelor of Arts with Honors. Some went in for the advanced degrees. Some could complete the course requirement for the degree in two years but spent a third year on a piece of research. The B. A. curriculum involved in three years three examinations. There were no examinations at the end of a single series of lectures. The whole curriculum of the student was fluid. It was quite impossible for a man who had had annual or periodical examinations to say that he had had the equivalent of a given examination. The system used in the United States was possible there but was of no value in passing to Oxford.

What examinations, then, could be given to such students from abroad? Oxford exempted from all examinations except the final one and exempted also from some part of the requirement of residence. It was possible to secure a degree in two years. To whom could these concessions be made? The Hebdomadal Council approved degrees and institutions. Degrees in arts and general sciences were approved but not technical or professional degrees. There were no specific requirements as to a particular language, etc. What other extensions were possible? It might be possible to waive the requirement for a degree. It might be possible to recognize professional or technical degrees as substitutes for a general education. It might be possible to reduce the requirement of two years' residence, a requirement which he himself would not change, because he believed it required two years for the overseas student to appreciate the Oxford way of life, to understand and benefit from the atmosphere of Oxford. General applause indicated agreement with Dr. Wylie as to the wisdom of requiring two years of residence for assimilation of Oxford or Cambridge atmosphere.

Prof. E. R. Holme, Professor of English Language, University of Sydney, explained certain handicaps under which Australians were laboring at Cambridge because of the refusal of Cambridge to make any concessions to graduates of other universities.

A representative of the University of Aberdeen explained that Scottish universities accepted for admission the reports of the Entrance Examination Board. Aberdeen desired to have a majority of the work done by the student completed in the institution which conferred the degree. Indian students, he thought, should not come to Great Britain without previous experience in their own universities.

P. K. Sen, Fellow of the University of Patna, expressed the opinion that there should be "passport examinations," inasmuch as students in engineering or in medicine must be good in mathematics, physics and chemistry, and ought to be willing to take examinations in their previous work in these subjects.

Dean I. A. MacKay, Professor of Logic and Metaphysics and Dean of the Faculty of Arts, McGill University, declared that there was a psychological fallacy underlying the whole discussion of tests and measurements. The universities have been trying to measure things which are immeasurable. In Canada and the United States there had been a strong reaction against all of this. In America the effort was to deal with each student on his merits, to admit anyone with the ability and the will to achieve. Intelligence tests—in which Dean MacKay had faith—personal interviews and other devices were being used in the selection of students. It was easier, said Dean MacKay, for Canadian students to find their proper position in Harvard, Cornell or Chicago, where they were always welcome, than in Oxford or Cambridge. (This remark elicited hearty general laughter, susceptible of various interpretations!)

Prof. H. C. Notcutt, Professor of English in the University of Stellenbosch, supported the plea of Professor Holme, saying that because his institution did not confer the degree of Bachelor of Arts, students were obliged to spend an extra year in securing the degree of Master of Arts in order to assure their acceptance by Cambridge. Many students would do better to proceed to England after reaching the equivalent of the B.A. level instead of waiting to get the M.A. degree with its senior standing.

Sir Theodore Morison, Principal of Armstrong College, and Pro-Vice-Chancellor of the University of Durham, made a special plea for the newer universities of India, especially Osmania. These institutions were adopting the progressive principles of education approved by English departments of education. Yet these were the institutions not recognized. They were getting rid of the old training in memory and training students to think. And to do this they allowed them to think in their own language. He pleaded for sympathy with these universities.

Sir Theodore Morison then presented the principal of Osmania University, Mohammed Abdur Rahman Khan, who spoke of the foundation of his institution by one of the

premier princes of India, a man of great wealth and enlightenment. Speaking beautiful English, he told of his own experience in the use of English at Oxford and how even, after many years, it was easier for him to think quickly in his own language than in English. He instanced, as a slight indication of this, the fact that a bad word in English did not give him the same shock as a bad word in his own language! He believed, therefore, in the use of the vernacular in training students to think.

At the afternoon session, July 15, when the chairman was His Grace the Duke of Devonshire, Chancellor of the University of Leeds, there was an attendance of only eighty-four to participate in the discussion of the desirability of making provision for the physical welfare and training of students and organization of athletics with a view to securing more general participation. Prof. Tait MacKenzie of the University of Pennsylvania, who was graduated from McGill University, gave an account of how a Canadian, and more especially an American, university organized the health program of students.

Vice-Chancellor J. G. Adami, of the University of Liverpool, whose recent death is a loss to pathology as well as education, declared that of 2,000 students in Liverpool only 350 were taking exercise. Unable to provide playing fields for 2,000 students, Liverpool was making a fresh start in medical inspection of entering students, finding many cases of remedial disease and physical defects which can be corrected by wise advice.

Captain C. Lamb, physical director of the Montreal Amateur Athletic Association, talked about the Harvard system, describing the posture silhouettes of students and dwelling upon the effect of these in bringing about correct posture. He had noted how well set up the Harvard men were, and he had observed striking difference between the students of Great Britain and those of Canada and the United States. He believed that the winters of Canada

and the United States made a program more necessary than in a country where one can play golf of Christmas Day.

Principal Grant Robertson, of the University of Birmingham, spoke of the problem as it affected the civic university. He believed universities responsible for physical as for intellectual and moral welfare of students. Yet he believed that English universities were not ready for what he had seen in the United States—and what he had seen had been most impressive. The financial problem was the principal obstacle. Birmingham students, moreover, did not wish to be organized in the American way. So the principal had been taking one step at a time, and the first important step was a compulsory medical examination for every student. He had been moved to this by study of the health records of 1,800 students of education in Birmingham. These students, to become qualified teachers, had to pass a medical examination. The Faculty of Education required an examination before admission to the department and at least two later examinations during a four-year course. The resultant statistics were impressively in favor of the wisdom of such examinations. The cost had been objected to. It had cost £1,000 at Birmingham. To secure statistics the medical faculty had worked out a questionnaire which had terrified. They wanted complete vital statistics. That was not what he wanted. Students asked if the authorities were going to utilize this information in excluding them from the university? Birmingham did not do that. Remedial methods were suggested, but responsibility was thrown back on parents and family doctors. Students at Birmingham asked to be admitted to the education department courses in physical education. He thought all this would not lead to compulsory organization of games, but to the university realization that provision for the health of students was a legitimate university expenditure.

L. A. Adamson, president of the Metropolitan Amateur Football Association, Victoria, emphasized the importance of military training, especially the experience in camp for a fortnight and the medical examinations required of junior

cadets, senior cadets, and members of the civic military force. Compulsion he declared to be abhorrent to Australians unless the compulsion was that of the law. He believed there was danger of increasing inter-university competitions. He concluded with an expression of horror at the idea of betting on university contests and declared that the ethos—the spirit of the Public Schools—was the great thing to seek.

In Aberdeen, the next speaker explained, the winter months caused a difficulty because darkness began at three in the afternoon. Only Saturday afternoons were available for games. Wednesday afternoon was given up to exercise in the open air. There was no compulsory medical examination at Aberdeen. The examination was voluntary, and students sought the advice of a regularly appointed member of the medical staff. Aberdeen had decided against having a medical man as health officer because Aberdeen believed that such an officer was unlikely to be an efficient trainer. So the university was seeking a former army or navy instructor.

The chairman in closing the discussion asserted that the compulsion proposed was impossible because of legal difficulties arising out of the charters. He dismissed the idea, moreover, by insisting that universities were for training the intellect and finding truth.

Friday morning the Right Honorable the Viscount Cecil of Chelwood, Chancellor of the University of Birmingham, presided during the discussion of the actual working of the Ph.D. scheme. This subject brought out a very full attendance.

Lord Cecil said that he was not at all sure that a really impartial scientific investigation of the trouble in the coal industry would not reveal that part of it, at least, was due to the insufficient attention given in the past year to the value of research in that industry. After the Napoleonic Wars, when much the same condition prevailed, it was the

great impulse and stimulation conveyed by the work of research and invention that enabled that generation to overcome the difficulties with which this generation also was faced. Without researchers there could be no research. It was these men who gave the whole university the inspiration without which it could not really exist. Researchers were no less essential to the whole civilized world. Though it might be true that poets were born and not made, in other branches of intellectual activity both natural endowment and severe training were needed. It was to encourage that training that the degree of Ph.D. was instituted. How had the scheme worked?

R. E. Priestley, assistant registrar for Research Students at Cambridge, presented a report on the number of students in research at Cambridge, an increasing number. The degree, he believed, was regarded as the hall-mark of the potential teacher rather than the mature research worker. The Annual Report of the Cambridge Board of Research Studies for the period, Easter, 1925, to Easter, 1926, distributed at this session, showed that there had been an increase in the number of research degrees awarded: 1922-23, 6 Ph.D.; 1923-24, 13 Ph.D.; 1924-25, 33 Ph.D.; 1925-26, 43 Ph.D.. The number of Cambridge graduates and the number of graduates from universities of the United States had again increased. The fields of study in which there were more than ten research students were these: Biochemistry, 17; Botany, 21; English, 25; Geology, 12; History, 14; Mathematics, 22; Modern Languages, 11; Organic Chemistry, 23; Physical Chemistry, 16; Physics, 42; Psysiology, 11. The table of distribution of research students in the colleges showed that there were 49 in Trinity, 39 in Emmanuel, 25 in Gonville and Caius, 24 in Christ's, 22 in St. John's and 20 in Newnham and smaller numbers in other colleges. Of these research students, 90 had previously studied in Cambridge, 5 in Oxford, 12 in London. Excluding Cambridge, the English universities were represented by 43, the Scottish universities by 25, the Irish by 6, the Welsh by 15, Canadian by 13, Australian by 10, United

States by 37 (one more than those from combined Canadian, Australian, New Zealand and South African universities). The list of research students proved to be significant, especially in that it showed 35 students to be "working away from Cambridge under supervision." Of these six were interesting to Americans: two Harvard and King's College men studying physiology under supervision of Prof. L. J. Henderson of Harvard; a Harvard and King's College man working under Dr. J. H. Means of Harvard; an Oxford and Gonville and Cauis College man supervised in pathology by Professor Chambers of Cornell; a Harvard and Trinity College man studying biochemistry under supervision of Dr. Cohn of the Rockefeller Institute; a St. Andrew's and Emmanuel College student of physics under Prof. A. H. Compton of Chicago. Work for the Ph.D. at Cambridge may be done in part, then, away from Cambridge and under supervision of other than Cambridge professors, provided the supervisors are approved by the Cambridge authorities.

The Director of the American University Union, British Division, Prof. R. M. Wenley, spoke of the attitude of American universities toward research and the Ph.D. degree, whether in universities of the United States or abroad, presenting the high ideals with which members of the Association of American Universities are familiar, and referring to recognition by scientific associations as an important matter in American scholarship.

J. F. Dobson, Professor of Greek, University of Bristol, reverting to the time of establishing the Ph.D. degree scheme, referred to the argument that gifted but guileless Americans might resort to British universities to get the Doctorate. The Americans, he thought, had not proved so guileless as expected, and had not come in large numbers. Most of the candidates at Cambridge were Cambridge graduates. What was the gain? It used to be that a man was content with a B.A. and then to undertake research in Cambridge laboratories. At the present time were men attracted by the opportunity for research in the laboratories or by the Ph.D. degree? In his opinion the institution of

the Ph.D. degree, so that a man might have a broader hem on his gown, had not been justified.

Prof. A. P. Newton, Professor of Imperial History, University of London, declared that the Ph.D. degree was actually serving the cause of learning. Few went in for it merely to tack the degree on after their names. In the past they had had the M.A. research degree and the higher degree of D.Litt. Their problem had been to fit the Ph.D. in between. At London little more than half of the candidates were graduates of the University of London. One-sixth were from American universities. Americans wished to present the work done in London to Columbia, Chicago or Michigan. In taking degrees at their own universities, they desired to establish contacts in the educational world in which they would pursue their professional careers. At London the Ph.D. was secured in two but usually three years. It was getting common to take the M. A. on the way to the Ph.D. For admission to candidacy a high standard B.A. degree was desirable—first or second class honors.

Sir Gregory Foster, Provost of University College, University of London, said that London had registered 600 students for the degree since its establishment. The number of applications was unknown, but it was at least 760. By offering theses 275 had presented themselves for the test. Of these 221 obtained the degree. The largest number, 179, was in science, there being 155 in chemistry. In Arts there were 58; of whom 37 took the degree in English; in Economics 19 took the degree; in Engineering 5; and in Theology 5. About half of the 600 students came from London and the other home universities. The largest number of the remainder came from India, the United States, Australia, New Zealand, Canada, South Africa. Twenty-five were from European universities. The University of London was satisfied with the Ph.D. scheme as a link of empire, and as a system of linking the university system of the whole world. As to researchers who came to work under distinguished men, and without taking a degree, there was no diminution in number.

Nor had there been any diminution in the number of students taking the degrees of M.A. and M.Sc. He had noted that part-time students were graduates of London or other home universities. Dominion and foreign students invariably were full-time students and took part in the life of the college.

Prof. F. E. Weiss, Professor of Botany, the University of Manchester, and formerly at the head of the Association of University Teachers, expressed the opinion that research would have grown without the institution of the degree because of the war experience. He had been disappointed in the number of students received from abroad and feared the debasing of the older degrees. The Association of University Teachers feared that the Master's Degree might become a sink for failed Ph.D.'s.

The final speaker objected to Ph.D. degrees for export only. He called attention to the amount of research undertaken by secondary school teachers in France and Germany. This had a relationship to the continental practice of drawing members of a university staff from the secondary school personnel. This was not a practice of English-speaking countries. He emphasized also the importance of a rigorous sifting process, including even the second class and pass men, inasmuch as early opportunity sometimes affected a man's degree, and good research men had been found even among those who had taken only second class honors. He desired also to encourage teachers who were able to give only part time to advanced work but who could get the degree if allowed more time. Among such persons he had found some of his best workers.

At the final session Friday afternoon, July 16, the chairman was the Right Honorable the Viscount Haldane of Cloan, Chancellor of the University of Bristol. It was important, Lord Haldane said, that teachers should be enabled to move freely from one university to another without losing pension rights. Mathematics, philosophy, architecture and juris-

prudence had their common bases, and it was important that the great teachers should be brought into contact with each other. It would be of enormous advantage if teachers of medicine, and in particular those who were studying cancer, could exchange posts, if only for a brief period. If pension schemes could be articulated, such an exchange would be facilitated. The paper was presented by Mr. W. M. Gibbons, registrar of the University of Sheffield, Secretary to the Federated Superannuation System for Universities.

Although the congress was not in any sense an international one, the officers were very courteous to the universities of the United States. The names of the Chairman of the American Council on Education, Rt. Rev. E. A. Pace, D.D., the Director of the British Division of the American University Union, Dr. R. M. Wenley, and of the Assistant Director of the American Council on Education were printed in the list of members of the congress. The universities of the United States were frequently referred to, as in Mr. Justice Greenshield's reference to the Harvard Law School and that of the Principal of the Law School of the University of Calcutta to the work of Prof. Roscoe Pound. The working of the Ph.D. scheme and the consideration of health programs for students involved many allusions to American practices.

An American educator could not but be touched by the courtesy of the members of the congress and proud of the signs of respect for American higher education. And, naturally, an American felt desirous of cooperating with those who were seeking to solve similar problems. That is why this rather full account of the discussion has been presented for the information of those who in the United States might find it possible to work together with the British universities. If the School for Legal Studies should be established in London, there would be opportunity for Americans to make appropriate gifts of books for the study of American law. There is an immediate opportunity, moreover, for American

universities and associations to make available for British colleagues publications bearing on common problems. It was a pleasure to present to the Chairman of the Universities Bureau, Sir Donald MacAllister of Glasgow, some of the yearbooks of the National Student Health Association. Others named in the account of the discussion of this subject might find useful these documents and others regarding the university health programs, including the provision of psychiatrists. Certain universities emphasizing cooperation in research may be interested in the cooperation of industry and education which has been fostered in the United States by the National Research Council and the American Council on Education. Especially some of the British universities are interested in the subject injected by Dean MacKaye, the methods of personnel administration. The American Council on Education will be glad to further communication between American and British institutions on any of these topics.

An American, appreciative of the problems common to universities in English-speaking countries and mindful of the courtesies extended by the congress to a representative of the universities of the United States, makes bold to hope that the Congress of 1931 may be held at the largest university of the empire, Toronto, and that it may be possible in such a case for universities of the United States to be honored after the congress by friendly visits of the guests of their distinguished neighbor.

DAVID A. ROBERTSON.

Notes on English Urban Universities[1]

THE AMERICAN Association of Urban Universities defines the final phrase in its title as meaning institutions of collegiate rank situated in large cities. Such institutions may be either publicly or privately supported. The bond of union in this Association lies in the development at the various member institutions of similar branches of activity conditioned on urban life. Examples are: adult education in evening classes and extension work; cooperative training in industry and commerce; service rendered to various city interests, and, generally speaking, efforts of any kind to adapt educational resources to urban requirements. In the same field the English universities have done much more than is commonly realized in this country. It is to be noted that similar conditions there have led to the same results which we have attained in America, and this is particularly striking in view of the fact that the work in the two countries has proceeded independently and with but little interchange of thought. While America has been unhampered by tradition, England has had to overcome the barriers of caste, academic usage and economic difficulty. A few of these limitations deserve consideration.

In the days before the present urban universities had come into existence in England, higher education was beyond the reach of the major part of the population. Oxford and Cambridge had nevertheless been founded originally for rich and poor alike. In this respect, they had perhaps more in common with the American university of today than with the present Oxford and Cambridge. Extensive provision was originally made at Oxford for the poor student, as may be seen in the college statutes of those early days.

[1] From a study on urban influences in higher education in preparation by the author.

The increasingly aristocratic character of the old universities may be attributed to the rise in fixed expenses and the economic and intellectual changes of the sixteenth century. The bitter reproaches hurled against the aristocratic tone of the old universities by certain working class representatives of the present day find an early and interesting counterpart in the words of Latimer, quoted from his First Sermon preached before King Edward VI:

> If ye bring it to pass, that the yeomanry be not able to put their sons to school (as indeed Universities do wondrously decay already), I say ye pluck salvation from the people, and utterly destroy the realm. Is this realm taught by rich men's sons? No, no; read the chronicles. By yeomen's sons the faith of Christ is, and hath been maintained chiefly.

If the economic argument be here substituted for the religious, these words might have come from the mouth of an English labor leader of today.

In spite of such warnings, the old universities grew increasingly expensive and increasingly exclusive. Nor was the selective process limited by economic conditions only. It is less than fifty years since religious tests were barred, and the old traditions have naturally not been entirely forgotten. The most powerful factor, however, lay in the fact that England had grown to regard her two old universities as existing largely for the purpose of giving to a select class "the education of a gentleman." So firmly fixed are class distinctions in English life that it is difficult for an American to realize the bar which this conception set up. In later years much of this has been modified in part, largely as a result of the constant pressure exerted by the demands of the working classes for higher education and by the establishment of the newer universities. But fifty years ago, just prior to the establishment of the latter, the outlook was dark indeed for any democratization of university training.

The founding of new universities in the great cities of England was in the nature of a direct response to the wishes of the British workingman. Since the early years of the nineteenth century, efforts had been made by university men and others to satisfy this need. The first formal influ-

ence of the university milieu on the education of the working classes in Great Britain is to be found in Glasgow. In his will, dated May 7, 1795, John Anderson, Professor of Natural Philosophy in the University of Glasgow, bequeathed the whole of his property "to the public for the good of mankind and the improvement of science, in an institution to be denominated, 'Anderson's University.'" With this bequest, which included a museum, library, and apparatus, the founder desired to furnish liberal and scientific education for all classes, and an education particularly adapted to the needs of the new type of workingman, called a mechanic, who had been brought into being by the industrial revolution and the growing application of science to industry in urban centers. So strong was Anderson's appreciation of the need of such education that he himself in 1796 gave a course in physics which was opened to mechanics and others interested. A successor of Anderson, Dr. George Birbeck (1799) laid the foundation on which was established that great class of early nineteenth century schools called Mechanics Institutes. These are among the most important forerunners of the English urban universities of today.

The end of the first quarter of the nineteenth century found the Mechanics Institute movement swelling toward flood tide. They sprang up, naturally, in such great cities as Liverpool, Manchester, Leeds and even London, till they could be counted by the dozens, almost by the hundreds. Most of them gradually disappeared, but a few remained to be embalmed, so to speak, in the organization of the urban universities. They represent an early example of the direct influence of the concentration of urban population (particularly of the working classes) on higher education. It would lead us too far to set down in detail the story of other popular movements for education (particularly adult education) which preceded the establishment of the urban universities and prepared the way for them. Thus Chartism by its very nature represented a revolt against upper class administration of education and accordingly against the type of education offered by the older universities. It laid

at least a spiritual foundation for that system of workmen's education which today refuses university cooperation and prefers to develop a specialized system of economics for working people, to be taught in so-called Labor Colleges. Among the various early efforts at adult education may be mentioned the Adult School Movement (for religious education), still a considerable factor in the field today; Christian Socialism; the Cooperative Movement; and finally the "College" activities for workpeople, embracing People's Colleges, Working Men's Colleges and Labor Colleges. It is important to note that the emphasis began to shift more and more from the purely vocational trend of the Mechanics Institutes to the liberal aspects of education. Of greatest interest is the effect of these earlier "colleges" in awakening the large urban centers to the necessity for higher education.

During the third quarter of the century these forces, which had so long been quietly operating, had prepared the way for remarkable development in urban higher education which was to mark its final period. In the great cities earlier foundations coalesced to form new universities, and the university extension movement was born. The attitude of the older universities had, up to this time, been passive, and their participation in the earlier movements largely unofficial. Appeals for help to these institutions were probably not even dreamed of in the earlier days. But the growing importance of the demand for education by the working classes must have grown gradually apparent even to the academic detachment of Oxford and Cambridge. Naturally, the desirability of making a popular appeal was far from their thoughts. They did not, as they do today, receive grants from public funds, hence no great democratic sense of responsibility to the people existed in them. This fact makes even more remarkable their eventual response to the needs of a class from which they had experienced much antagonism and from which they could hope for no material return. Nevertheless the fact remains that the first university extension work in England was instituted at Cambridge in 1873, largely through the efforts of an enthusiastic

young Fellow of Trinity College, James Stuart, a Scotchman, who may well be called the father of university extension. So great were the local enthusiasms engendered, that in several cities colleges arose devoted to this purpose, several of which later served as the bases for founding urban universities.

The urban university period in England may be reckoned as beginning with the Charter of 1880, by which the Victoria University was founded at Manchester, on the basis of Owens College. Subsequently University College of Liverpool and Yorkshire College of Leeds were admitted. This federalized university continued to exist as such until local pride caused Liverpool to seek the establishment of her own university. A new charter was issued to Manchester in 1903, "reconstituting the University under the name of the Victoria University of Manchester and freeing it from liability to admit or remain in association with any other college than Owens."[2] It must not be inferred that no urban university work was carried on before 1880. As a matter of fact, the movements which later led to the establishment of institutions of this type were already active in most of the cities concerned, in the form of uncorrelated separate institutions. But the first conscious attempt to assemble the elements of such an institution under the name "university" is represented by the foundation of Victoria, which was intended to become the university of the whole north country. The plan was basically wrong, as was proved by the result. It failed to reckon with the factor of local pride, a potent element in building public institutions of any sort. While Yorkshire College of Leeds remained loyal even during the period of secession, the physical difficulties of administration and intercourse, and the diversity of local interests, proved too great a handicap for the Victoria University. Meanwhile, Birmingham, in 1900, had established its own university and this, together with the dissolution of the

[2] The Yearbook of the Universities of the Empire (p. 180), edited by W. H. Dawson, for the Universities Bureau of the British Empire, G. Bell and Sons, Ltd., London, 1925.

Victoria University, established for all time the principle of the local urban institution, bearing the name of the city of its location. To be sure, its field of service and support extends in all cases far beyond city boundaries and often includes considerable sections of the country, but in so far as location and sentiment are concerned, the English urban university of today is essentially linked to its own individual city.

Two other "newer" universities were already in existence when The Victoria University was founded in 1880, but neither had at that time assumed the distinguishing marks of the modern urban institution. Durham, the eldest of the new group, was founded in 1832 as a "handmaiden of the Church of England," with a course confined to theological and classical training. A University College of Medicine was added in 1870, and Armstrong College (covering agriculture, economics, education, classics, science, engineering, and certain liberal subjects) assumed its present name in 1904. The two newer colleges are located at Newcastle-upon-Tyne, while the original foundation occupies the ancient castle in close connection with the cathedral at Durham. While this arrangement may at first glance seem to be open to the same difficulties which destroyed the old Victoria University, the two cases are in reality quite unlike. There cannot possibly arise between the great city of Newcastle and the little town of Durham any such rivalry as existed between Manchester and Liverpool. In fact, the arrangement seems to be a most fortunate one, giving to the greater city the location of the more practical phases of modern education, but lending to the whole enterprise the academic prestige which clusters about Durham and its cathedral university. Four years after the foundation of Durham, the University of London was constituted by Royal Charter (1836), as a body empowered to grant degrees to students of approved institutions after examination and, until 1900, its work was confined to the examination of students. Thus, while London was really the greatest English center of individual higher institutions of the urban

type, these were not incorporated into a university unit for the purposes of giving instruction until 1900.

If the whole of the nineteenth century may be regarded as a time of preparation for the coming of the urban universities, the first decade of the twentieth century represents the great period of their arrival. Following the establishment of Birmingham in 1900 came, as already stated, the dissolution of the Victoria University and the reconstitution of its units into separate universities at Manchester, Liverpool and Leeds. Before the end of the decade Sheffield and Bristol had been added and quite recently Reading, making, with London and Durham, a total of nine institutions, as follows:

Durham, 1832; London, 1836; Victoria, 1880 (including temporarily Manchester, Liverpool, and Leeds); London, 1900 (reconstituted); Birmingham, 1900; Manchester, 1903; Liverpool, 1903; Leeds, 1904; Sheffield, 1905; Bristol, 1909; Reading, 1926.

In addition to these universities, England has three university colleges. These colleges are single institutions, carrying on work of a university grade and often of a considerably diversified character. They are, so to speak, universities in embryo, but having not yet been chartered as universities, they may not confer the degree, a privilege reserved in England for the universities alone. Students from these colleges may later attend a university and there receive a degree, or they may take the examinations of the University of London for the external degree. All the colleges are products of the nineteenth century and in spirit are largely akin to the urban universities. This is especially true of Nottingham, where adult education is receiving particular attention. The following list gives the dates of their incorporation as university colleges. In some cases an existence as an institute or a non-university college has preceded: Nottingham, 1881; Southampton, 1902; Exeter, 1922.

It would be unprofitable for our purpose to enter too far into the realm of conjecture in trying to trace the influence of all the previous efforts at education upon the establish-

ment of the new universities. But of two things we may be certain: the early efforts at establishing technical vocational training as represented by the Mechanics' Institutes, and the adult extension movement undertaken by the older universities, have both been powerful factors in helping establish the English urban university system. In few cases, however, can the matter be so simply disposed of as to say that a particular institution sprang from but a single source. In most instances the urban university represents an agglomeration of separate institutions of various origins. Thus it becomes a complicated matter to trace all the threads of any particular university, and such an effort would serve to confuse rather than to enlighten. It is not difficult, however, to proceed from the basis of the original movement and to indicate those institutions in which its influence has been apparent. The Mechanics' Institutes have left definite traces upon several of the nine universities. Most conspicuous is the case of the Victoria University of Manchester. Originally this institution was founded upon the basis of Owens College. In 1846 John Owens, a prominent merchant of the city, left in his will nearly £100,000 to found a college, which was later named in his honor. He provided that instruction should be "in such branches of learning and science as are usually taught in the English Universities." He laid down the principle that there should be no theological tests for either teachers or students, and that nothing must be introduced in the matter of or mode of education in reference to any religious or theological subject which shall be reasonably offensive to the conscience of any student.

This bequest is especially interesting, not only because it is the first given to establish university training in the cities, independent of the old universities, but because it represents the new industrial motive in education and specifies freedom from religious test. Subsequently a college of medicine was added, but perhaps the greatest source of strength to the present university lies in its inclusion, in 1905, of the university grade work of the splendid Manchester Municipal School of Technology, the direct descendant of the original

Mechanics' Institute founded in Manchester in 1824. In Liverpool there seems to be little, if any, reflection in the present University of the old Mechanics Institute established in that city in 1823, although the Athenaeum, an arts institution founded somewhat earlier (1799) is at least a spiritual progenitor. It is a matter of interest to notice that in these two cities, so closely connected by location and by earlier academic ties, the Mechanics' Institute in one case developed into a great modern Technical School of university grade, and in the other passed out of existence without leaving a trace.

At Birmingham, the Midland Institute, incorporated in 1864, had an undoubted influence upon the formation of the Mason College, founded by Sir Josiah Mason in 1880 and later the nucleus of the university. Developing the lines of urban education as a separate institution, the Midland Institute is now affiliated with the University. The University of Sheffield, although not founded on the basis of a Mechanics' Institute, owes much to the old Sheffield Mechanics Institute, since it helped to furnish the incentive which later led to the opening of the technical branch of Firth College, the nucleus of the university. In Bristol, another type of old technical foundation, the Merchant Venturers' College, has become the basis of the Faculty of Engineering. In London, Birbeck College, founded in 1823 by Dr. George Birbeck, the father of the Mechanics' Institute movement, is now a school of the University of London.

University Extension has played an even greater rôle in university building than the Mechanics' Institutes. At least its influence dates from a later period and is therefore easier to trace. Here we see the older universities taking an active part in the establishment of the newer ones. This is however, no less truly the result of a purely urban influence, since the extension activities of Cambridge and Oxford were called into being largely by the demand of the cities. The unusual element lies in the fact that the urban need was not, and could not be, supplied by the cities themselves, but must of necessity be indirectly met by appeal to the

existing universities. While this had not been necessary in the development of technical education, it was but natural to regard the old universities as the source of that liberal training which made up so large a part of the extension movement.

The first independent university grade enterprise to be initiated on the basis of extension work was in Nottingham. In 1874 a private gift of 10,000 pounds provided for the endowment of an institution in which the extension work already initiated by Cambridge could be carried on, with the provision that the city should erect suitable buildings. Thus came into existence the University College of Nottingham, opened in 1881. At Sheffield the Cambridge extension lectures began in 1875 and had soon attracted so much favorable notice that the mayor of the city himself donated a building for the work. Thus Firth College came into existence in 1879 and in 1897 was chartered as a university college, the nucleus of the present University of Sheffield. The same wave of enthusiasm for the Cambridge lectures engulfed Liverpool and resulted in appeals for a great popular subscription. The sum thus secured enabled Liverpool to establish University College, chartered in 1881, and now the basis of the University of Liverpool. It is worthy of note that in Liverpool, as in Sheffield, the mayor was the active figure in promoting the establishment of the new institution, showing as it does the truly urban, almost officially municipal, character of the early efforts.

As against the three institutions founded under Cambridge influence, Oxford has but one to her credit. This is doubtless due to the fact that Cambridge, as the instigator of the movement, had prior access to the more promising centers. It may also be in part accounted for by the personal enthusiasm of James Stuart, the father of the extension movement at Cambridge and in England. Oxford, however, has no cause to be ashamed of her child, the new University of Reading. In 1882 the Oxford Extension Courses were opened in that city. Seven years later the University Extension College was opened, and in 1902 it was chartered as a

University College. Today, having just become a university, it bears the stamp of its progenitor much more clearly than do any of the descendants of Cambridge.

Several urban universities have been powerfully influenced in their origin and development by medical schools. Thus the Leeds School of Medicine, founded in 1831, and amalgamated with Yorkshire College in 1884, is the oldest element of the University of Leeds. At Liverpool the Medical School of the Royal Infirmary established in 1834 "became the primal germ of the University."[3] The University of Durham took its first important step in secular education by its association in 1852 and final incorporation in 1870 of the Durham College of Medicine (founded in 1832, the same year as the university itself). Bristol also associated with its University College in 1893, a medical college, which became a constituent part of the University of Bristol in 1909.

Only London and Durham, the two oldest of the urban universities, have had their origin in arts or theological institutions. At London it was University College (nonsectarian) and Kings College (Church of England) which formed the initial combination. At Durham the basis was the university college conception, under the influence of the older universities and the Church of England. Perhaps this very contrast with the circumstances under which the other urban institutions were founded, will best illustrate the developments of the nineteenth century.

Today the English urban university is most nearly kindred in spirit to the municipal university of the United States. It has introduced democracy in educational opportunity into England in the sense that its doors are open freely to all classes of population. Unfortunately, bad economic conditions still hamper many individuals in their efforts to make use of the chance thus offered. While it takes pride in serving a constituency much broader than the limits of

[3] Studies in Higher Education in England and Scotland, George Edward Maclean, Bulletin 1917, No. 16, U. S. Bureau of Education. The writer desires to express his appreciation of the valuable work of Dr. Maclean, upon which he has freely drawn.

any single city, the cooperative efforts of the English urban university are largely localized to meet the needs of the municipality in which it is located. By its municipality also is it largely supported, though additional funds are gained from local educational authorities of nearby localities and from the state. As in the case of urban institutions everywhere, the attendance is predominantly local. But in their spirit of progress lies the greatest resemblance of the newer English universities with our own municipal and urban institutions. With their American contemporaries of the same type they share that freedom from prejudice and tradition, that willingness to learn and grow, which alone can be the salvation of higher education.

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Coordinating Boards of Higher Education—A Suggestion

IN THE field of higher education there has never been a greater need that two blades of grass be made to grow where one grew before. The necessities of civilization are fundamentally spiritual. New resources must be worked out first in the collective thinking of man before they become material realities. The power of Muscle Shoals, of Priest Rapids, and of thousands of unharnessed waterfalls, for instance, cannot be utilized for human weal until trained engineers, financiers, and industrialists have labored. The vision must guide an army of trained men in the journey to every Promised Land.

In 1920 there were 5,522,082 young people of the ages of 18, 19, 20, and 21 in the United States. The number of collegiate students was 356,694, or approximately only 6.4 college students for each 100 of the population whose age would suggest their eligibility. As a matter of fact, however, intelligence tests indicate that but 20 out of each 100 have the ability to acquire collegiate instruction. On this basis less than one-third of those qualified are represented in the enrollment of our institutions of higher education. A democratic society needs its full complement of guides.

We Americans are said to be fortunate in our organizing ability. When a task of unusual magnitude confronts us an effective organization is devised. Sometimes it is a commission empowered to engage special and technical services. In government matters the procedure is apt to be slow and encumbered by political considerations. When, however, a definite task has been turned over to a special body of representative men, a high order of accomplishment has been the rule. Perhaps the most difficult situation occurs when the project transcends state lines. An instance of

this is seen in the Colorado River irrigation and power development. There is hope that the waters of that river, which passes through several states, will be utilized for large public welfare. If this is done, it will be to the credit of such a commission. Higher education is another source of power that transcends state lines, and its effective utilization is a serious problem.

The multiplying fields of specialized training constitute a difficult problem in the administration of higher education and are responsible to a large extent for the increasing costs The problem of keeping each institution of higher education up with the full demands of the times has become impossible. The ideal of a universal university cannot be realized. The struggle on the part of institutions to reach such an ideal is tragic.

Even if it were possible to train technically or professionally a few students distributed among many institutions, the lack of economy is evident. It is not simply a question of the waste of money that is involved, but the greater waste of human material. The economical development of a professional or technical curriculum is conditioned on at least two essential factors, namely, proximity to the field of practical application and the presence of a sufficient body of students. The opportunity for nearby apprenticeship and part-time work in the practical field is of fundamental importance. With such a neighborly association there are also large numbers of young people with corresponding interests established. If students are available in numbers sufficiently large to occupy the reasonable teaching time of a faculty, the conditions are favorable. Philanthropists, educational foundations and states having money to invest in higher education must consider these two conditioning circumstances. Let us look briefly at some of the facts, using public higher education in some of the western states as a text.

The eleven states, usually referred to as the mountain and Pacific Coast states, constitute 40 per cent of the area of the continental United States, exclusive of Alaska. Their popu-

lation was in 1920 but 8 per cent of that of the United States and their wealth, in 1922, 11 per cent. The population per square mile was 7.6 as compared with 35.5 for the United States as a whole. The increase in population in 1920 over the year 1900 was 118 per cent as compared with an increase of 39 per cent for the United States as a whole during the same period. On July 1, 1925, the Census Bureau estimated the population of these states as 10,082,261. These are comparatively new states, and their needs bulk large in comparison with the available wealth. Among these needs higher education has a leading place because of its vita relations to the material and social development.

The state-supported institutions of higher education in these states number twenty. In 1922–23 they enrolled 47,901 students, which is 23.8 per cent of all the students enrolled in state-supported institutions of higher education in the United States. In other words, while these states had only 8 per cent of the population, they had relatively about three times as many students in state universities and colleges. Of this number 22,782, or 47.6 per cent, were in the professional and technical departments. In the state-supported institutions of higher education of the United States as a whole, 55 per cent of the students were enrolled in these departments.

A study of the "Statistics of State Universities and State Colleges" for the year ending June 30, 1923, as compiled by the U. S. Bureau of Education, has disclosed some interesting facts with reference to the enrollment in the professional and technical departments of the state-supported institutions of higher education in the eleven western states referred to above. The following paragraphs summarize the situation with reference to certain of the technical and professional curricula.

1. Engineering and mines, with 6,440 students, constitute 28 per cent of the technical enrollment. There were eighteen institutions in the eleven states. In Colorado, Utah and Washington there are two engineering colleges in each state.

These are the technologies that deal with the problem of

industrial development and control. The need is not alone for mine, chemical, civil, mechanical, and electrical engineers but for the almost countless combinations of engineering training. Technically trained men are needed to grow up with new industrial problems bringing to them the applications of science. The diversity appears to be great, as it is conditioned on the actual needs arising from the struggle to develop our diverse resources. Are the prospective engineers being given the equipment needed? Are there duplications and wastes? Are there important phases of the training that are not covered? Is there a problem of the best distribution of the training centers? How the problem can be best handled is one requiring the advice of the leaders in the various engineering fields.

2. Agriculture is next in importance with 2,403 students or 11 per cent of the technical and professional enrollment. Each of the eleven states has an agricultural college. In some the enrollment is too small for the best development, indicating also a probable high cost that it is hard to justify. The fact that they are supported in part by a federal subsidy does not help. It only makes a bad matter worse by a division of support and responsibility.

In the problem of producing food to meet a demand which increases faster than the available soil, state lines should not be permitted to block the development of the scientific training needed. For instance, a high degree of special training in the animal industries can only be developed where a considerable faculty is available. In a region where the value of the farm stock represents $750,000,000, there is ample basis for the development of a high degree of special training. An institution having a department of animal husbandry with but a single instructor will find it impossible to develop some of the phases of the subject that are much needed. Such departments are apt to turn out imitators rather than leaders. It is probable that one institution specializing in the animal industries would be organized were it not for the difficulties involved in the ambitions of each state. It is not a question of the elimination of educa-

tional service but rather its development for the maximum of benefit.

3. In law every state has a school except Nevada and New Mexico. In number the provision is ample. The enrollment in at least four of the nine schools—Arizona, Idaho, Montana, and Wyoming—is small, suggesting the wisdom of consolidation. There was a total of 1,156 students in the nine schools.

4. Pharmacy is taught in six of the eleven states, and in one, Washington, there are two state colleges of pharmacy. In three states—Colorado, Idaho and Montana—the enrollment would be classed as too small for effective teaching. The number of pharmacists in training (793) is greater than the number of physicians.

5. There are four curricula in medicine in as many states—California, Colorado, Oregon and Utah—while California has the added benefit of a non-state medical college. There were 733 students enrolled. The problem in medicine is probably to encourage an increase in the opportunities for medical education and its companion profession of public health supervision and nursing.

6. The situation in dentistry is also one where there appears to be no excess in institutions since only California has a curriculum in dentistry in its own university. The enrollment was 466.

7. Colorado, with 74 students, and Washington, with 18, are the only states reporting curricula in veterinary medicine. Apparently a single curriculum would be sufficient.

8. Nine thousand one hundred and forty-nine, or 41 per cent of all those enrolled in professional and technical curricula, are under "other subjects." Among these, business administration as a major subject is being developed with considerable success in the institutions located in large commercial centers. The proper provision for professional training in this field should be made the subject of a cooperative study to the end that the more highly specialized phases may be developed and closely related to the needs of business. The number of institutions attempting to furnish this

training should be determined in accordance with a full and impartial study of the facts. Fine arts, education, forestry, journalism, library science and nursing are likewise important fields, each of which is worthy of a separate and careful study to determine what the wisest and the most economical development should be.

9. Graduate curricula are not listed among the professional departments, but this is a most fruitful field for waste of money, time and valuable human effort. To attempt to do graduate work without the necessary equipment of training or material is a grave mistake but one that is being made rather generally.

Duplication of the technical curricula in the institutions of a single state has been a prolific source of waste, accentuated by institutional ambitions and marked by strife. There have been, however, within some of the western states, meritorious attempts to solve these problems. In Oregon in 1909 a Board of Higher Curricula was established whose object was to reduce the duplication of professional and technical courses at the university and the Agricultural College. The record of this board is one of achievement. The State of Montana has a chancellorship and a state board through which its competing institutions of higher education are required to function. A fair estimate of that situation must also record the success of the experiment. In 1917 the state of Washington created a Joint Board of Higher Curricula which served until 1925. The chief success of this board was its fact-finding reports upon which the legislature and the governors based their actions. In the State of California a single board of regents is operating a university which bids fair to extend over the entire state. By administrative machinery, such as that utilized in large corporations having widely separated plants, it is hoped to be able to keep the institutions of higher education within a single organization rather than to have them group themselves into two or more rival organizations.

A practice in the western states of charging non-residents tuition fees, while admitting their own residents practically free, has developed. The reason for this non-resident

differential is, of course, the desire of each state to protect the provision it has made for its own citizens. Such rules are awkward to apply and suggest the wisdom of the founders of the republic in providing against tariff barriers between states. The freedom of movement of citizens from state to state is one of the things that seems most remarkable to Europeans and is indeed a valued characteristic of American life. In the van of every migration of people are the young and vigorous, and among these the college men and women take a large part. The western colleges and universities have in their enrollment every year large numbers of students who are attracted to them both by the lure of the west and the advantages offered in higher education. Most of such students—it is estimated at 85 per cent—remain in the land of their adoption. Probably the states could well afford to treat the non-state students as their own simply on the business theory that it would be cheap advertising. It would surely appear to be so when the sums spent by Chambers of Commerce and other associations to attract residents is considered. The reason for some of these non-state tuitions is undoubtedly no better than "that is what the other state charges our students." So a bad practice in one state tends to, in fact has, become general. Two states, Nebraska and Oklahoma, have sensed the logic of the situation and charge non-resident tuition only to students from states where such tuitions are in force. In these cases the non-resident student is charged the same as a non-resident student would be charged in his home state.

The next logical step would seem to be for the states to unite in the study of the common problems involved in higher education looking toward effective cooperation. The charging of a high tuition to the student who has the hardihood to go beyond the borders of his home state is not necessarily the wisest policy. Surely nothing could be more foolish than to attempt to develop higher education so extensively that all the curricula taught in any state would be taught effectively in each state.

The means of this cooperation may well be an "Inter-State Board of Higher Curricula" whose purpose should be:

(*a*) to prevent wasteful duplication of curricula; (*b*) to stimulate full provision for all necessary forms of higher education; (*c*) to promote comity between states so that citizens of the cooperating states may share equally in the benefits of the highly specialized and efficiently developed curriculum of any state institution; and (*d*) to provide for curricula cost statistics as the basis for such settlement as may be necessary in this exchange of students.

The territory to be represented by a Curricula Board should be contiguous as far as possible. There is no reason, however, why the number of states represented in certain conferences might not be greater than in certain others. Methods of partial or complete affiliation might be worked out to facilitate making working arrangements with somewhat distant states, for a special curriculum that it might be impracticable to supply within the immediate territory.

The members of an Inter-State Curricula Board should be laymen and, as far as possible, they should be appointed by and from state curricula boards. Where there is a single institution of higher education, a member of its board of control (regents or trustees) should be appointed. In the event that neither situation prevails, the governor should be requested to appoint a layman to represent the state.

The way such a board would function would be determined by the nature of the problems submitted to it. Dealing with professional curricula, it would be natural to seek the assistance of committees composed of leading professional men. For instance, in the matter of the education of lawyers it might appoint an advisory board on the recommendation of the chief justices of the cooperating states. In engineering education a committee of the leading western engineers might be selected on the recommendation of the officers of the national engineering societies. In agricultural education the national officers of the farmers' organizations might assist in naming a committee. In a somewhat similar way other special committees could be organized.

In order that each committee might learn from the experience of all the secretary of the curriculum board should meet with each one.

It would be the business of each special committee to make a report of facts with their recommendations to the Curricula Board, which board should then make public the report and appoint times and places for such public hearings as the interest of the public in the questions at issue may warrant. After full consideration the report of the Special Committee should be accepted, rejected, or returned for further study. In any event the final outcome must be a constructive report that receives practically the unanimous support of the commission and can be recommended to the several state and institutional boards and legislatures for appropriate action. Approximately identical legislative acts should be proposed in the several legislative assemblies, authorizing the proper representation on the commission.

There is a need for a larger amount of cooperation on the part of the leaders in higher education, a lessening of institutional rivalries, an increase in the community of interest among states, and a utilization of modern cooperative methods devised for the solution of large and unusual problems.

What has been said of the western states is almost equally applicable to the state institutions of the middle west and the east. The private colleges and universities have problems of a similar nature.

The waters of the Colorado River running through and between several states and through two countries possess great value. The benefits to be derived from holding back the floods of the river to irrigate the fertile plains or to turn the wheels of power plants will not only be large in the states immediately effected but will be widely distributed throughout the country. In a somewhat similar way cooperation in the development of the resources for higher education in the western states would place that region of the world in the front ranks of progress with blessings widely dispersed.

EDWIN B. STEVENS.

THE UNIVERSITY OF WASHINGTON,
SEATTLE.

Institutional Members, 1926-27

ALABAMA:
- Alabama Polytechnic Institute
- Birmingham-Southern College
- Howard College

ARIZONA:
- Arizona, University of

CALIFORNIA:
- California, University of
- Dominican College
- Mills College
- Occidental College
- Southern California, Univ. of
- Stanford University.

COLORADO:
- Colorado College
- Colorado State Teachers College
- Denver, University of
- Loretto Heights College

CONNECTICUT:
- Connecticut College
- Wesleyan University
- Yale University

DELAWARE:
- Delaware, University of

DISTRICT OF COLUMBIA:
- Catholic University of America
- George Washington University
- Georgetown University
- Trinity College.

FLORIDA:
- Florida State Coll. for Women
- Florida, University of
- Southern College

GEORGIA:
- Agnes Scott College
- Emory University
- Wesleyan College

HAWAII:
- Hawaii, University of

ILLINOIS:
- Carthage College
- Chicago, University of
- De Paul University
- Illinois, University of
- Knox College
- Lake Forest College
- Lewis Institute
- Loyola University
- Northwestern University
- Rockford College
- Rosary College
- St. Xavier College

INDIANA
- De Pauw University
- Earlham College
- Indiana University
- Notre Dame, University of
- Purdue University
- Rose Polytechnic Institute
- St. Mary's College, Notre Dame
- St. Mary-of-the-Woods College

IOWA:
- Coe College
- Cornell College
- Grinnell College
- Iowa State College of A.& M.A.
- Iowa State Teachers College
- Luther College
- State University of Iowa

KANSAS:
- St. Mary's College
- Washburn College

KENTUCKY:
- Center College
- Georgetown College
- Kentucky, University of
- Louisville University

LOUISIANA:
- Louisiana State University
- Southwestern Louisiana Inst.

MAINE:
Bates College

MARYLAND:
Goucher College
Hood College
Johns Hopkins University
Maryland, University of
Mt. St. Marys College
Notre Dame College
St. John's College

MASSACHUSETTS:
Amherst College
Boston College
Boston University
Clark University
Harvard University
Mass. Institute of Technology
Mt. Holyoke College
Radcliffe College
Smith College
Wellesley College
Wheaton College
Williams College
Worcester Polytechnic Institute

MICHIGAN:
Albion College
Alma College
Detroit, University of
Kalamazoo College
Marygrove College
Michigan College of Mines
Michigan, University of

MINNESOTA:
Carleton College
College of St. Catherine
College of St. Teresa
Hamline University
Macalester College
Minnesota, University of
St. Olaf College

MISSOURI:
Central College
Lindenwood College

MISSOURI—*Continued*
Missouri, University of
St. Louis University
Washington University
Webster College
Westminster College

MONTANA:
Montana, University of

NEW HAMPSHIRE:
Dartmouth College
New Hampshire, University of

NEW JERSEY:
College of St. Elizabeth
Georgian Court College
Princeton University
Rutgers University
Stevens Institute of Technology

NEW MEXICO:
State University of New Mexico

NEW YORK:
Alfred University
Brooklyn Polytechnic Institute
Buffalo, University of
Colgate University
College of the City of New York
College of Mt. St. Vincent on Hudson
College of New Rochelle
Columbia University
Cornell University
Elmira College
Fordham University
Hamilton College
Hunter College
Manhattan College
New York University
Rensselaer Polytechnic Institute
Rochester, University of
Skidmore College
Syracuse, University of
St. Bonaventure's College
St. Stephen's College

NEW YORK—*Continued:*
Union College
Vassar College
Wells College

NORTH CAROLINA:
North Carolina College for Women
North Carolina, University of
N. C. State College of A. and E.

OHIO:
Akron, Municipal University of
Case School of Applied Science
Cincinnati, University of
Denison University
Heidelberg, University of
Lake Erie College
Marietta College
Miami University
Muskingum College
Oberlin College
Ohio State University
Ohio Wesleyan University
Otterbein College
Western Reserve University
Wittenberg College

OKLAHOMA:
Oklahoma, University of

OREGON:
State Agricultural College

PENNSYLVANIA:
Bryn Mawr College
Carnegie Inst. of Technology
Drexel Institute
Dropsie College
Grove City College
Haverford College
Lafayette College
Lehigh University
Marywood College
Pennsylvania, University of
Pennsylvania College for Women
Pittsburgh, University of
Seton Hill College
St. Vincent College

PENNSYLVANIA—*Continued:*
Swarthmore College
Temple University
Villanova College
Wilson College

SOUTH CAROLINA:
Converse College
South Carolina, University of
Winthrop College

SOUTH DAKOTA:
South Dakota State School of Mines

TENNESSEE:
Chattanooga, University of
Southwestern
Vanderbilt University

TEXAS:
Baylor University
College of Industrial Arts
Incarnate Word College
Our Lady of the Lake College
Rice Institute
Texas, University of

UTAH:
Brigham-Young University
Utah Agricultural College

VERMONT:
Middlebury College
Vermont, University of

VIRGINIA:
College of William and Mary
Sweet Briar College
Virginia Polytechnic Institute
Virginia, University of
Washington and Lee University

WISCONSIN:
Lawrence College
Marquette University
Milwaukee-Downer College
St. Mary's College
Wisconsin, University of

WYOMING:
Wyoming, University of

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